

IN THE SPECIFICATION

Please amend the Abstract as follows. A clean version of the amended Abstract is provided on the page 4.

~~--A group of inventions relate generally to radio engineering, and more particularly to a method of data transmission (embodiments) and apparatus of data transmission (embodiments) to be used, for example, in cellular communications systems when transmitting an information signal over the downlink from base station to mobile station. The goal of the present method~~ Method and apparatus of data transmission (embodiments) and the apparatus of data transmission (embodiments) is to in a cellular communication system which can increase the efficiency of the information signal transmission in the downlink and, thus, maximize the information signal reception quality at the mobile station. The elaimed solution can also reduces reduce the feedback channel (from mobile to base station) load. The apparatus operates along with the base station and provides M diversity groups of transmission channels, each group having K transmission channels. Each group of transmission channels is an independent adaptive antenna array with multiple antenna elements, each connected with the respective signal control components, which can ensure correction of ~~object of the invention is attained by correcting the spectrum of the transmitted information signal copies, transmitting the information signal copies from each adaptive antenna array in each efficient transmission direction, estimating the transfer functions of the directional transmission channels using the pilot signals transmitted from each antenna element, pilot signals for transmit diversity, a combination of transmitted from each adaptive antenna array in each efficient transmission direction, combining these two estimates[[,]] and~~

by ~~estimating the~~ estimation of efficient transmission directions in the downlink at the base station using the received feedback ~~mobile station~~ signal. (Fig. 11) --